

and Saturn, may not also be diffraction phenomena originating in their own moist atmospheres, just as halos and other colored beams originate in the earth's atmosphere. The changes of tint on the surfaces of the clouds of Jupiter and Saturn occur at certain angular distances from the sun and earth, such as to make this suggestion worthy of special study. The elaborate works of Mascart, Pernter, and others on this subject must be studied by those who would go into precise details.—C. A.

### THE EIGHTH INTERNATIONAL GEOGRAPHIC CONGRESS.

The report of the Eighth International Geographic Congress, held in the United States in 1904, has recently been published by the Government as Document No. 460, House of Representatives, 58th Congress, 3d session, Washington, 1905. In its wealth of geographic papers we find the following articles bearing directly upon meteorology:

Pages 246-265. Meteorological summary for Agaña, island of Guam, for the year 1902. By Dr. Cleveland Abbe, jr., of the U. S. Geological Survey.

Pages 266-271. A climatological dictionary for the United States. By Prof. A. J. Henry.

Pages 272-276. Scientific work of Mount Weather Meteorological Observatory. By Prof. F. H. Bigelow.

Pages 277-293. Suggestions concerning a more rational treatment of climatology. By Prof. R. DeC. Ward.

Pages 294-307. The Canadian climate. By Prof. R. F. Stupart.

Pages 308-321. The climate of Kimberley. By J. R. Sutton.

Page 322. A project for the exploration of the atmosphere over the tropical oceans. By A. Lawrence Rotch.

Pages 323-327. Antarctic meteorology and international cooperation in polar work. By Henryk Arctowski.

Pages 328-339. De la prédominance des tourbillons, en sens inverse des aiguilles d'une montre, dans les cours d'eau de l'Europe centrale et occidentale. By Jean Brunhes.

Pages 340-342. Rainfall with altitude in England and Wales. By William Marriott.

Pages 343-347. Climatology of the lowlands and watershed terraces of Natal. By Frederick W. D'Evelyn.

Pages 348-351. Aerostation associated with the study of geography. By E. V. Boulanger.

Pages 352-379. Climate of Pamplemousses, in the island of Mauritius. By T. F. Claxton.

Pages 380-385. Climate of Ts'aidam, in eastern Tibet. By A. Kaminiski.

Pages 386-392. Meteorology of Western Australia. By W. Ernest Cooke.

Pages 393-396. On the unsymmetrical distribution of rainfall about the path of a barometric depression crossing the British Isles. By Hugh Robert Mill.

Pages 397-406. Evidences of land near the North Pole. R. A. Harris.

Pages 408-424. (In German.) Winds and ocean currents. By E. Witte.

Pages 465-467. (In German.) Vertical motions of the earth observed by the trifilar gravimeter. By Dr. A. Schmidt.

Pages 468-477. (In German.) The foundation, organization, and problems of the International Seismological Association. By Dr. G. Gerland.

Pages 535-540. The form of the geoid, as determined by measurements in the United States. By John F. Hayford.

Pages 664-670. Climate and cult. By J. Walter Fewkes.

Pages 711-714. Color in the north and south polar regions. By Frank Wilbert Stokes.

Pages 737-740. The scientific results of the Russian expedition to Kham. By Capt. P. Kozloff.

Each of the items in the above list is worthy of a fuller abstract than we can give it. The volume can be easily obtained by application to any member of Congress, and should be in the hands of every teacher and special student.—C. A.

### THE LEGITIMATE LINE OF DUTY.

During the month of March the Weather Bureau and other branches of the Department of Agriculture received from correspondents in several different States requests for authoritative replies to various questions which turned out to be identically the same, and many of which did not relate to the work of the Department of Agriculture. In some cases the questions came from teachers or scholars, in others from the

cooperative observers of the Weather Bureau. Our first temptation to answer these questions, as a kindness to our correspondents, was quickly modified by the consideration that as these all had a common origin they very probably related to some competitive or other civil service examination, with which it was improper for a Government bureau to interfere. Therefore in some cases the questions were not answered.

On further inquiry, however, the Editor discovered that these 27 questions emanated from a very enterprising manufacturer of pianos, or his business agent, who took this method of advertising his pianos. It is not often that the United States Government is made a party to any such advertising scheme, and it is earnestly to be hoped that in future struggles for a prize no observer or correspondent of the Weather Bureau will again attempt to enlist its kind offices.

Several cases have come to the Editor's knowledge during the past twenty years in which Government officials have been requested to act as umpires or give authoritative decisions as to points under discussion. The Government was not established for any such purpose as this, and such correspondence will always remain unanswered as being outside our legitimate line of duty.—C. A.

### THE TORNADO AT MERIDIAN, MISS., MARCH 2, 1906.

By LEE A. DENSON, Observer, Weather Bureau. [Extract from Form 1014 A.]

The tornado that visited Meridian on the evening of March 2 was the most destructive local disturbance ever observed in eastern Mississippi. Twenty-three people were killed, and it is estimated that the loss of property damaged or destroyed is about \$400,000.

The sky had been cloudy all day and occasional light showers occurred, the temperature being above normal, with maximum, 69° F., shortly after noon. A fresh breeze from the south and southeast prevailed, in connection with a large barometric depression that was moving eastward across the central portion of the country, but notwithstanding the breeze the atmosphere became oppressive and toward evening a heavy bank of dark strato-cumulus clouds was observed in the southwest, from the front of which occasional small streaks of lightning issued. Distant rumbling thunder was heard at 5:40 p. m. At 6 p. m. the clouds had assumed a very threatening aspect and rain began to fall at 6:05. There were frequent flashes of sheet lightning. About 6:20 p. m. a sound resembling the noise made by a fast moving freight train came from the southwest. The sound became louder and louder, attaining a terrific roar for a minute as the disturbance passed. All was quiet again at 6:30 p. m. The center of the storm passed 250 yards south of the local office of the Weather Bureau, moving a little north of east, at 6:26 to 6:27 p. m. The barograph pen dipped sixteen hundredths of an inch and recovered immediately (see fig. 1); the temperature fell only 2° F. and recovered 1° F. within 10 minutes. At 6:15 p. m. the velocity of the wind was only 9 miles from the southeast; at 6:20 it was 16 east, backing to northeast at 6:22 and returning to east at 6:23 and to southwest a minute later when there was a marked increase in the velocity, the direction being

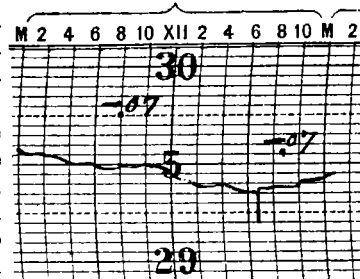


FIG. 1.—Barogram at the office of the U. S. Weather Bureau, Meridian, Miss., March 2, 1906.

velocity recorded was 64 miles from the east, as the storm passed. Immediately afterward the rate diminished to 36 from the west and 5 minutes later it was 12 miles from the southwest. This record clearly shows the inward rush of air toward the center of the storm.